



**CENTRE FOR BUDGET STUDIES (CBS)**  
COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY



**TWO-DAY NATIONAL SEMINAR**  
**HEADWAY TO A GREEN WORLD:**  
**EXPLORING DEVELOPMENT THROUGH SUSTAINABILITY**

*The Centre for Budget Studies (CBS), CUSAT, is honored to organize a two-day National Seminar, sponsored by RUSA on Sustainable Development, which will take place on November 17-18, 2023.*

*CBS invites submission of scholarly papers on various domains of sustainability. Academicians, researchers, students, and experts can submit theoretical and empirical papers addressing various topics in this domain.*

**CALL FOR PAPERS**

**THEME I :  
ECONOMY, ENVIRONMENT  
AND SUSTAINABILITY**

- Sectoral economic growth in India
- Sustainable Development Goals (SDGs)
- Circular Economy and Green Economy
- Energy and Emission
- Infrastructure and Tourism
- Cities and urban development
- Climate change

**THEME II:  
SUSTAINABLE PRACTICES AND  
PARTICIPATION**

- Production and Consumption Behaviour
- Green Business and Entrepreneurship
- Sustainable Building and housing architecture

**THEME III:  
INNOVATION, FINANCE AND  
MANAGEMENT**

- Reuse, Reduce and Recycle
- Sustainable supply chain management
- Waste Management
- Policy and governance
- Digital innovation for sustainability
- Traditional Knowledge and Indigenous Practices

**Submission Guidelines:**

- The abstract/extended abstract must include title, keywords and author/s name, and designation.
- All abstracts should be mailed to [cbscusat.seminar@gmail.com](mailto:cbscusat.seminar@gmail.com)
- The abstract must be sent in English in a PDF format.
- Selected papers will be considered in an edited book.
- There will be no Seminar Fee and TA will be provided to paper presenters according to prescribed guidelines.

Individuals interested in participating in the seminar may register by filling out the Google form below.

Google form link :  
<https://forms.gle/ceZw6mYWuxHKi81u9>



**IMPORTANT DATES**



**FOR MORE INFORMATION:**

[cbscusat.seminar@gmail.com](mailto:cbscusat.seminar@gmail.com)

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# PROGRAM SCHEDULE

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**17 NOVEMBER 2023**

09:00 AM **REGISTRATION**

09:30 AM **WELCOME ADDRESS**

Dr. HASEENA AKBAR  
POST DOCTORAL FELLOW

**PRESIDENTIAL ADDRESS**

Dr. SANTHOSH KUMAR P.K.  
DIRECTOR, CENTRE FOR BUDGET STUDIES

**INAUGURAL ADDRESS**

Dr. SAM THOMAS  
DEAN OF SOCIAL SCIENCES

**KEYNOTE SPEECH**

Dr. SREELATHA  
KERALA AGRICULTURAL UNIVERSITY

**FELICITATION**

Prof. Dr. HARIKUMAR  
ADJUNCT FACULTY, DEPARTMENT OF APPLIED  
ECONOMICS, CUSAT

**VOTE OF THANKS**

ANJALI HARIDAS  
ASSISTANT PROFESSOR, CBS

11:45 AM **ACADEMIC SESSION I**

CHAired BY : Prof. Dr. HARIKUMAR  
ADJUNCT FACULTY, DEPARTMENT OF APPLIED ECONOMICS,  
CUSAT

02:30 PM **ACADEMIC SESSION II**

CHAired BY : Dr. S. SABU  
DIRECTOR AND ASSOCIATE PROFESSOR,  
SCHOOL OF INDUSTRIAL FISHERIES, CUSAT

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**18 NOVEMBER 2023**

10:00 AM **ACADEMIC SESSION III**

CHAired BY : Prof. Dr. S. MURALEEDHARAN  
VICE CHAIRPERSON, CSES  
FACULTY MEMBER, KN RAJ CENTRE, MG UNIVERSITY

**VALEDICTORY FUNCTION**

**REPORT ON TWO DAY NATIONAL SEMINAR**  
**HEADWAY TO A GREEN WORLD: EXPLORING**  
**DEVELOPMENT THROUGH SUSTAINABILITY**

17-18 NOVEMBER 2023

Centre for budget studies (CBS), CUSAT organized a two-day national seminar on “**HEADWAY TO A GREEN WORLD: EXPLORING DEVELOPMENT THROUGH SUSTAINABILITY**” on November 17-18.

**17/11/2023 -**

The registration for the participants and paper presenters started at 9 AM. After the registration, the programme started at 09:50 AM and hosted by Ms. Neenu Rachel. 18 paper presenters, students from CBS and other institutions and many other aspiring minds became part of the programme. Dr. Haseena Akbar, post-doctoral fellow at CBS, delivered welcome speech and introduced the programme to all. The seminar discusses Headway to a green world where we discover the latest advancement in sustainable practices and technologies, and how they reshape the industries and ecosystems. The dignitaries on the dias were Dr Santhosh Kumar P.K, Dr Sam Thomas, Dr. Sreelatha, Prof. Dr Harikumar.

Presidential address was delivered by **Dr Santhosh Kumar P.K**, Director of Centre for budget studies. He explained sustainability as Economical-Social-Environmental wellbeing.

The programme was inaugurated by **Dr. Sam Thomas**, Dean of Social sciences, CUSAT. He highlighted how the coexistence of green, development and sustainability can lead to the well-being of current and future generations. The necessity of state led/regulation led movement and its benefits in each segment are addressed. Apart from this programme he mentioned the establishment of “centre for sustainability” at CUSAT which facilitate the intersection of science, technology, business, and economics is a dynamic space where innovation, research, and economic principles converge.

Keynote speech was given by **Dr. Sreelatha** from Kerala agricultural university. She explained how the natural soil is being destroyed in many ways. Use of manures like urea leads to eutrophication, ie, only a part of the manure is absorbed by plant, this can lead to high yield but at a cost of environmental quality. She pointed out how traditional knowledge-based method like use of natural varieties, less fertilizers, and low external outputs can give good yield with efficiently using resources. She explained how Pokkali cultivation, one of the native cultivation techniques in Paravoor and Vypin areas shows the efficient use of resources. These areas are coastal areas where sea level rises and saline water flows to farming areas. In Pokkali cultivation farming and prawn cultivations are done in a cyclical order to keep the fertility of the soil. She also talked about her other researches and the session was an enriching session.



*Keynote address by Dr. Sreelatha*

A small token of gratitude was given to both Dr. Sam Thomas and Dr. Sreelatha.

**Prof Dr. Harikumar**, Adjunct faculty of Department of applied economics, CUSAT delivered the felicitation address. He addressed the need of holistic and innovative approach to seam environment conservation and responsible resource management.

**Ms. Anjali Haridas** expressed gratitude on behalf of the organizers and entire CBS department during the vote of thanks.

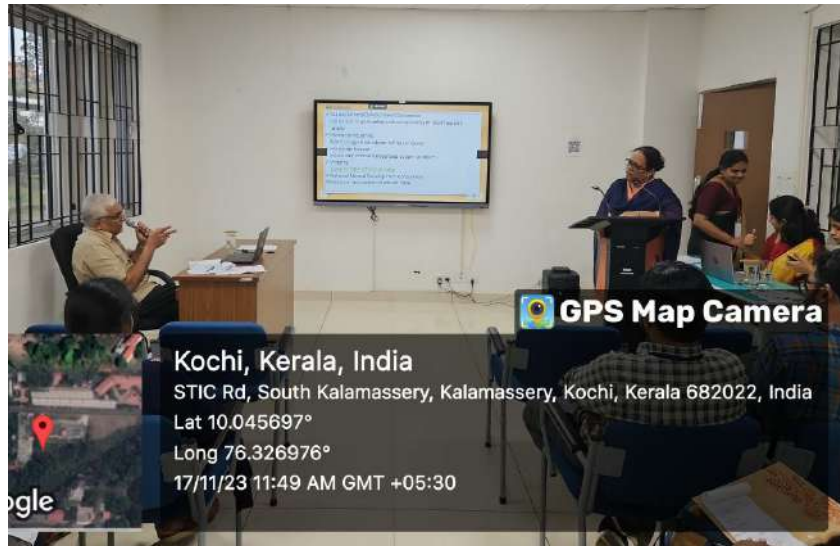
At 11:15 the programme was paused for a short tea break. The programme restarted after 15 minutes for the first academic session.

First academic session was chaired by **Prof Dr. Harikumar**, Adjunct faculty of Department of applied economics on the topic **“INNOVATION FINANCE AND MANAGEMENT”**. Four papers were presented and discussed in the first session.

### **1) Exploring the interplay of CSR, SDGS and Financial performance in Indian corporate landscape**

First presentation of this theme was on the topic **“Exploring the interplay of CSR, SDGS and Financial performance in Indian corporate landscape”** by **Muthu Lakshmi R.**, Research Scholar, CUSAT. The paper aims to raise India’s Corporate Social Responsibility (CSR) regulations and the introductions of the sustainable Development Goals (SDGs) occurred concurrently, offering a significant opportunity for synergistic collaboration in pursuit of a more sustainable future. The paper aims two framework share common areas of focus and require similar sets of activities for achievement, making them mutually reinforcing pillars in the journey toward sustainability. Through their research and findings, they concluded the paper places central emphasis on discerning the crucial roles played by CSR and the SDGs in guiding businesses towards their objectives. In turn contributes to advancing India’s economic growth and enhancing the well-being of its society. Harikumar sir and the audience raised several points during the discussion session. They suggested that the authors should provide CSR and SDGs effects, does CSR actually uses for SDG theoretical framework, education women empowerment in CSR, SDGs and their positive externalities created by mining companies, clearly define the type of respondents included in their study.





*Muthu Lakshmi R presenting*

**2) A study on cities towards immaculateness: with special Reference to Sultan Bathery, one of the cleanest Towns in Kerala**

Next presentation was “**A study on cities towards immaculateness: with special Reference to Sultan Bathery, one of the cleanest Towns in Kerala**”, by **Aiswarya Jose**, Guest Lecturer, Sacred Heart College, Thevar; **Aswathi M.S** post Graduated Student, Sacred Heart College, Thevar. The present study focuses on the evolutions of town from an ammunition depot to an appreciable model of immaculateness that every city can get inspired from. The objectives of the study are to find out the measure taken by loan self-government towards successful waste management, to analyse the step taken forward by the authorities for public awareness and implementation of initiatives and to examine the impact of these plan of action in the area of study. Their finding concludes though Kerala is known for its high literacy rate and its model of development, it still lags behind in the matter of waste management and cleanliness. And “swach survekshan” the sanitation and cleanliness survey conducted by ministry of urban development, Kerala stands last position, apart from being small town Sulthan Bathery giving an eloquent message that proper planning and persistent efforts can make big changes possible, they also include Haritha Karma Sena that intention of removing the waste accumulated about two decades and developed into extensive action plan.



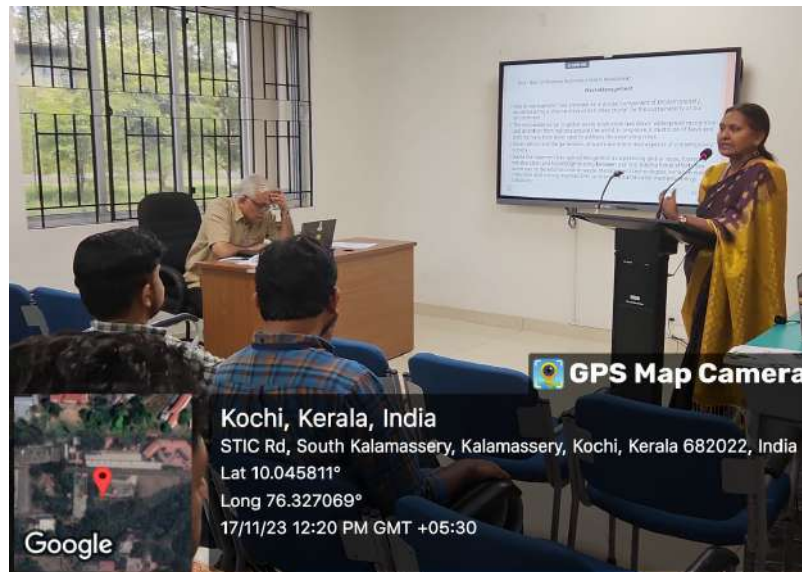
*Aiswarya Jose and Aswathi M S presenting*

After the session, questions were raised from the audience regarding the waste management, Haritha Karma Sena etc. Harikumar sir pointed out commercial waste management, and also type of pollutions in different area that cause hygiene and several steps for waste management.

### **3) Role of Women in Sustainable Waste Management**

The next session of the seminar was on the paper “**Role of Women in Sustainable Waste Management**” by **Suneetha Esampalli**, Head of Department of Economics, and Anagha Thomas, a second-year student from St. Ann’s College for Women, Hyderabad. The paper aims to raise awareness about waste management and highlight women’s contributions in the field. This paper endeavours to shed light on waste management processes, ultimately steering toward a more sustainable and ecologically conscientious future. It uses both secondary and primary data, including a survey of 50 people in Hyderabad. Through their research and findings, they concluded that there is a need to promote diversity in the workforce and educate people about waste management techniques. With broader community engagement, people can move towards a future where waste is managed efficiently, ensuring a cleaner and more sustainable environment for all. Harikumar sir and the audience

raised several points during the discussion session. They suggested that the authors should provide evidence of women's significant contributions to waste management, clearly define the type of respondents included in their study, expand their research to encompass e-waste management, and provide detailed information about the specific initiatives they have undertaken to study women waste management practices.



*Suneetha Esampalli presenting*

#### **4) Waste Management in India: Evolving Policies, Socio - Economic effects, and Environmental Consequences**

A paper on “**Waste Management in India: Evolving Policies, Socio - Economic effects, and Environmental Consequences**” by **Risvan ck**, MA Economics Student from Farook College, Calicut, aims to investigate waste management policies, their connection to the Sustainable Development Goals (SDGs), and the socioeconomic and environmental implications of waste management practices. The objectives include comprehending the nature of waste management policies, examining the relationship between waste management and the SDGs, exploring the potential for waste management to generate employment and reduce poverty, understanding the environmental aspects of waste management, and delving into the challenges posed by electronic waste. His findings concludes that the Indian government's waste management policies have primarily focused on controlling waste at the discharge



end rather than at the source. This has led to a number of problems, including environmental pollution, health risks, and poverty. The waste management industry in India could create up to 1 million new jobs if the informal waste sector is integrated into formal systems. This would also improve waste management and reduce poverty. However, India's waste management system is still facing a number of challenges, including a lack of awareness about the problem, improper waste segregation, and a high population density. It is crucial to promote sustainable waste management practices in India to address these challenges and protect the environment. After the session, questions were raised from the audience regarding the waste management policies. Murali sir also pointed out to concentrate more on statistical evidence of the paper.



*Risvan c k presenting*

First academic session ended with few insights from Dr Harikumar sir, about how we should implement "lab to land" method proposed by Dr. M S Swaminathan. Public policies should be formulated in such way that it sustains local land, climate and

practices. A small token of gratitude was shared to Harikumar sir by Ms. Praseetha, Section officer, CBS, CUSAT.

At 01:05 PM programme paused for lunch break and restarted at 02:15 PM for the second academic session.

In the absence of Dr. S Sabu, Director and Associate professor of school of industrial fisheries, **Prof Dr. S Muraleedharan**, Vice chairperson of CSES, chaired the second academic session. Second session was on the theme “**ECONOMY, ENVIRONMENT AND SUSTAINABILITY**”. Muraleedharan sir shared his experiences and views with audience. He talked about how economy and environment are interconnected, and how this connection can lead to unsustainability, by using the example of crude oil. Unsustainability can occur in every stage of production. Extraction, transportation and refining of crude oil can cause damages to environment. So, the only way out of it is to change our consumption style. Minimising the use of resources and ensuring non declining social welfare is sustainability and ensuring sustainability is not just government or authorities’ duty, Sustainability practices should start from daily life.

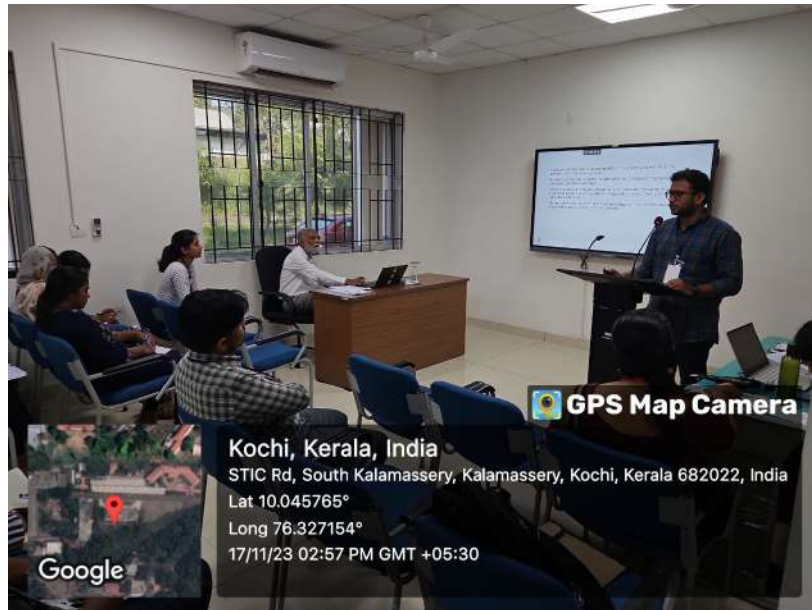


*Dr. Muraleedharan sir and his valuable stories*

five papers were presented in the 2<sup>nd</sup> session

**1) Exploring the contribution factors to agricultural growth in Kerala: An ARDL investigation of the dynamic relationships**

The seminar was on the paper “**Exploring the contribution factors to agricultural growth in Kerala: An ARDL investigation of the dynamic relationships**” by **Amidhali V**, PhD Scholar, Farook College Kozhikode. The research focuses on southern Indian state whose agriculture industry has suffered for number of reasons, the main aim of this study attempts to calculate Kerala’s agricultural growth rates as growth rate of the States’s major crop output and also calculated additionally factors determining the general growth of agriculture. Through his research he finds there has been an increase in the production of commercial crops and gradual decrease in the food crops production during study period. The study shows higher gross cropped area and fertiliser use per hectare have a positive long -term impact on the state’s agricultural growth, Rainfall, cultivation costs, and the price index of agricultural commodities have a negative impact on the state’s agricultural growth. After the session, questions were raised from both audience and sir, like temperature as a variable in agricultural growth, rainfalls inverse effects other crops, structural break for three periods, use of fertiliser will increase the yield in short run but does it sustain in long run.



*Amid Ali presenting*

## **2) The realities of sustainable consumption and production**

Presented by **Dr Tinu Joseph**, St. Francis de sales' college, Nagpur. The paper defines sustainable consumption and production as promoting resource and energy efficiency, sustainable infrastructure, and a better quality of life. Responsible consumption involves a symbiotic relationship between humans and the environment, termed 'ecolibrium.' It encourages consumers to Favor eco-friendly products and be aware of the origins of what they consume. Responsible production minimizes waste and pollution. The research methodology relies on secondary data from reputable sources, including NITI Aayog, RBI, UNSD environment statistics, and UNEP Global metrics for the environment. Using secondary data sources, it analyses India's performance in areas such as resource consumption, food loss and wastage, waste generation, sustainable awareness and practices, and scientific and technological capacity. The article concludes by highlighting areas of concern, including high material consumption and waste generation, and recommends measures for sustainable development at the local level.

After the presentation several questions were raised about the conclusions and theoretical aspects of the study. Muraleedharan sir suggested include sectors in India which we need to give importance to attain SDG goals.



*Tinu Joseph presenting*

### **3) Millets as an alternative to rice in Kerala to improve nutrition and sustainability**

A research team from Sacred Hearts College, Thevara, led by **Aravind Mathew, Abhijith Mathew, and Dr. Vinil K V**, is investigating the feasibility of replacing rice cultivation with millet in Kerala. Using quantitative methods and data from sources like FCI, MSP, and Kerala Agricultural Statistics, they are analysing factors such as production gaps, nutritional benefits, and financial returns for farmers. Their goal is to understand whether millets can offer a more sustainable and nutritious alternative to rice in Kerala. The study found that although rice production is much higher than millet production, millets offer several advantages such as: Nutritional superiority, Climate resistance, Higher income potential. The study recommends several policy measures to promote millet cultivation and consumption in Kerala, including



subsidizing cultivation inputs, providing higher MSP for millets, Subsidizing millets through the PDS system, Education and awareness campaigns, expanding millet-based meals in the Mid-Day Meal program, Improving the supply chain infrastructure. By implementing these recommendations, Kerala can improve its food security, address nutritional deficiencies, and promote sustainable agriculture practices. Murali Sir recommends focusing on the food habits of deficit societies in Kerala, particularly those experiencing nutritional deficiencies. He suggests highlighting the unique varieties of millets grown in the Attappady region and addressing the failures of existing policies to effectively support the transition from rice to millets.

#### **4) Effectiveness of agricultural drone usage for spraying fertiliser: A study in Thrissur district, Kerala**

Next presentation was on the topic “**Effectiveness of agricultural drone usage for spraying fertiliser in Thrissur District, Kerala**” by **Aleena raj**, college of Co-operation banking and Management, Kerala Agricultural University, Aswathy V Assistant professor (D/W), College of Cooperation, Banking and management, Kerala Agricultural University. The study mainly focuses on understanding farmers acceptance of drone-based spraying technology, particularly in paddy cultivation in the Thrissur District. It also evaluates the cost and times efficiency through the use of drone as compared to traditional and manual methods. Time efficiency through the use of done as compared to traditional and manual methods, use drone for crop production increase bacterial Invasion at abnormal time period. After the session, questions were raised from the audience, Murali sir also pointed out to concentrate on usage of drone in other area district and sustainable agricultural practices, drone spraying micronutrients.



*Aleena Raj presenting*

### 5) Mitigation and adaptation measures in the context of climate variability in Palakkad district, Kerala

A study by **Dr. Sumathy and Arjun Krishna** investigated how Palakkad farmers cope with climate shifts. The study used a mix of qualitative and quantitative methods, with data mainly collected through a structured questionnaire. The researchers focused on four key crops: rice, banana, coconut, and mango. These crops were chosen based on their importance in the Palakkad district and the state of Kerala.



*Arjun Krishna presenting*

They found that adapting to climate change, rather than trying to mitigate it, is more effective. Farmers are diversifying crops, adjusting planting times, and utilizing water wisely. his community-driven approach is helping them stabilize yields and even experiment with new crops. Though the main presenter was absent, the audience's active listening and interest were evident in their eagerness to ask questions in coming sessions.

With that second session and first day of the seminar came to end at 04:50 PM.

**18/11/2023 -**

Registration started at 09:30 AM and the programme started at 10:10 AM. The host of the programme Ms. Neenu Rachel introduced second day programmes and lead to the 3<sup>rd</sup> academic session.

3<sup>rd</sup> academic session was chaired by **Prof Dr. S Muraleedharan**, Vice chairperson of CSES. He shared his valuable insights with the audience. He explained forward and backward linkage between economic degradation and resource depletion. Environmental extraction will lead to resource depletion there by leads to environmental degradation. He pointed out the need for preventive science rather than curative science while dealing pollution. He shared how desertification, increase in rainy days within sunny days, oceanic pollution can lead to environ mental damages. He concluded by stressing the need of comprehensive approach to deal the environmental related issues.

In the 3<sup>rd</sup> academic session seven paper presentations were done. Six were offline and one was through online.

## **1) Thrifting: A Nascent Trend for Circular Economy in India**

**Thrifting: A Nascent Trend for Circular Economy in India** presented by **Nilima Tomson Membidikatt and Dr. Liance Mathew** from The Cochin College. The fast-fashion industry's rapid growth has raised environmental concerns, particularly in India, where the textile industry plays a significant role. Thrifting, which is the practice of purchasing previously owned clothing which are still in good condition, offers a potential solution to combat textile waste and promote circular economy principles. While challenges such as limited availability and societal perception persist, they hold immense potential to reduce environmental impact, promote sustainable fashion, alter consumer attitudes and behaviors and foster community engagement.

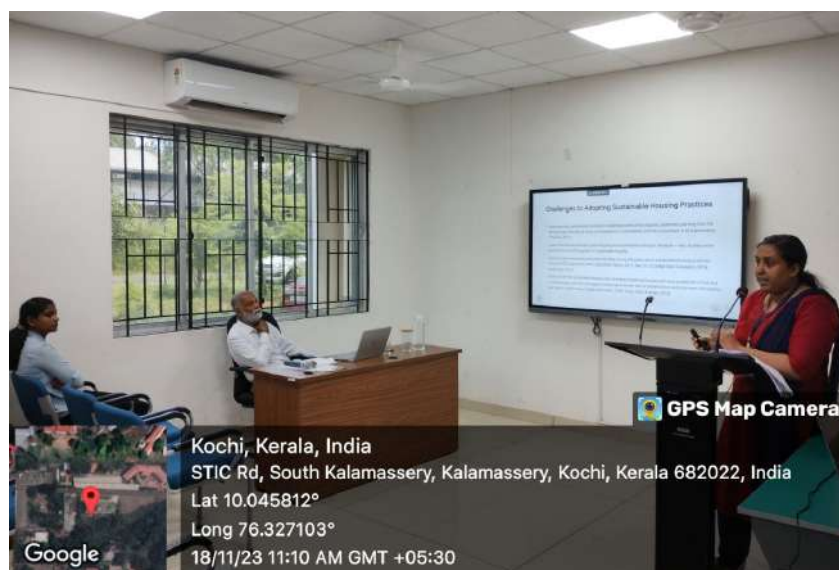
To fully realize this potential, policymakers, businesses, and individuals must collaborate to address challenges and expand access to thrift stores. The detrimental environmental impact of fast fashion demands immediate action for responsible consumption and production. Thrift stores emerge as indispensable agents in fostering a circular economy in India by offering affordable, gently used clothing options, thus mitigating the ecological consequences of premature disposal. By embracing thrift culture and second-hand clothing, Indian consumers can play a pivotal role in reducing the fashion industry's carbon footprint and promoting sustainable practices.

Since the concept is more popularized in the west, concerns and potential solutions were given to the presenter regarding its practical orientation in the local context and also to intensify the review of literature systematically.

## **2) Sustainable Housing Practices and its Economic Challenges: A Review**

Presented by **Amritha Vijai**, Assistant Professor, Department of Economics, N.S.S. College, Cherthala. The paper presented an in-depth analysis of the construction industry, focusing on sustainable housing practices. It highlighted the industry's historical significance, its role as a major employment generator, and its considerable environmental impact. Study was conducted using a review of literature – 36 relevant

articles were identified and reviewed and represented thematically. Sustainable housing practices hold immense potential to mitigate environmental impacts, enhance residents' well-being, and promote resource conservation. However, their adoption faces economic hurdles, including higher upfront costs, longer payback periods, limited awareness, market barriers, and inadequate financial incentives. Public policy can play a pivotal role in addressing these challenges by providing financial incentives, reforming regulations, promoting awareness, and supporting sustainable housing research. Key stakeholders, including governments, developers, financial institutions, consumers, and non-profits, must collaborate to overcome these barriers and foster a more sustainable housing future. The paper concluded by reinforcing the relevance of sustainable housing practices and their associated benefits. The need for future research to address social and economic sustainability aspects, factors influencing implementation, and the role of public policy in creating awareness was emphasized.



*Amritha Vijay presenting*

Few questions were asked by the audience about data collection and case study methods. Restoration of the old houses and sustainable architecture were also discussed. Session ended with few insights from Dr. Muraleedharan sir about the need of the general equilibrium approach rather than a partial equilibrium approach.



At 11:25 AM The programme paused for tea break and group photos were taken including all the participants, volunteers and paper presenters. The programme restarted at 11:50 AM.

### 3) Sustainability of hunger free Kerala project: with special reference to Janakeeya Bhakshanasala Pathirappally (Alappuzha)

The presentation by **Karthika V Menon** from Alphonsa College, Pala was on **Sustainability of hunger free Kerala project: with special reference to Janakeeya Bhakshanasala Pathirappally.**

While Global hunger remains a critical issue, affecting nearly one-third of the world's population, social entrepreneurship initiatives, like the Janakeeya Bhakshanasala in Kerala, offer innovative approaches to address hunger. These initiatives foster community engagement, utilize sustainable models, and demonstrates a measurable impact. Operated by the Snehajalakam Pain and Palliative Care Unit of CPI(M), Janakeeya Bhakshanasala is a "people's food court" aiming at providing free meals.



*Muraleedharan sir giving suggestion to Karthika*

It spearheads a unique social entrepreneurship initiative to combat hunger creatively and its sustenance relies on voluntary contributions, local community support, donations, sponsorships, and catering services. To effectively combat hunger, there must be investment in social entrepreneurship, promotion of community participation, addressing of the underlying causes, setting up of resilient food systems, and fostering of international cooperation. While successful, the initiative does have to face challenges like food shortages and waste management, necessitating further study for long-term viability. The impact of Janakeeya Bhakshanasala initiative is not limited to addressing hunger but also fosters social contribution, thereby underlining its potential as a model for achieving SDG 2 (Zero Hunger).

The challenges that arise are addressed by them systematically, which includes food shortages, waste management and the varying time range during which food is being served, is crucial for sustainability. Ongoing research is recommended to refine the initiative's approach. The talk concluded by saying that Janakeeya Bhakshanasala is indeed an inspiring example for community-driven hunger alleviation.

Towards the end, recommendations were made to create a conceptual framework and also to take MPI into consideration in the problem concerned.

#### **4) Climate Risk and its Impact on Financial Market**

Authored by **Nidhi Mariyam Mathew and Dr. Babu Jose**, St. Thomas College, Palai, Affiliated to Mahatma Gandhi University, Kottayam. And paper was presented by Nidhi Mariyam Mathew.

The presentation commenced with a comprehensive overview of the evolving and far-reaching consequences of climate change. Acknowledging the heightened concern among financial regulators, businesses, and investors, the speaker highlighted the alarming statistic from the Carbon Majors Report 2017, indicating that 100 companies are responsible for 71% of global greenhouse gas emissions. Climate change and the transition to a low-carbon economy present significant financial risks to investors, businesses, and the financial system. Climate-related events, higher adaptation costs, and disruptions can negatively impact stock returns, financial performance, and

financing choices. Sustainable investments, which consider ESG factors, offer potential mitigation strategies. Investor behaviour towards sustainable funds varies, while environmental disclosures improve risk assessments. Understanding climate risk is crucial for investment decisions and promoting sustainable finance. In conclusion, the presentation emphasized the critical role of climate risk in shaping financial markets, asset prices, investment strategies, and business performance. The uncertainty surrounding the magnitude and timing of climate risk was highlighted as a key factor. The report concluded with a call for the integration of climate risk into investment and business activities to create a positive impact on the planet for future generations.

Suggestions were given about defining and measuring climate risk and sustainable investment. Dr Muraleedharan sir and Dr Santhosh Kumar P.K suggested to categorise the sustainable investments, check the scientific background of the literatures used and to specify sustainable financial market.

#### **5) Sustainable cities, dynamics of urbanization: Challenges and Opportunities**

Presented by **Nithin K Warriar**, Assistant Professor, PG Department of Commerce and Research, Vimala College (Autonomous), Thrissur.

The paper explores the critical and intricate issues of sustainability in urban areas, acknowledging that cities are at the forefront of environmental, social, and economic challenges. With over fifty percent of the global population residing in urban centres, achieving sustainability becomes paramount for addressing global challenges like climate change, resource depletion, and social inequality. The study is conceptual, utilizing a descriptive design to analyse and advance arguments. It employs observation, case studies, and examination of records to identify urbanization challenges and propose adaptable solutions. Urbanization, with its implications for resource management, infrastructure, and social equity, presents both challenges and opportunities to create sustainable cities. Sustainable cities strive to balance economic prosperity, social equity, and environmental sustainability. This report explores the key dimensions of sustainable urban development, including mixed land use, efficient

transportation, green spaces, and equitable resource access. It also highlights the economic benefits of sustainable cities, such as job creation and improved quality of life. Embracing the challenges and opportunities of urbanization can pave the way for a sustainable and prosperous future for cities. The paper recommends continued research and implementation of sustainable urban practices, emphasizing the importance of mixed land use, active transportation, social equity, and economic diversification for long-term urban sustainability.



*Nithin K warrier presenting*

After the presentation Dr Muraleedharan sir suggested to focus more on one or two issues and recommended to go more analytical rather than just conceptual.

## **6) Leveraging Plastic Waste for Sustainable Road Construction: A Promising Solution for India**

**Sandra Ann Regi and Roshna Jomon** from Madras Christian College presented their paper on **Leveraging Plastic Waste for Sustainable Road Construction: A Promising Solution for India.**

India's plastic waste management crisis has gained global attention, with plastic roads emerging as a promising solution. This paper delved into the revolutionary concept of plastic roads in India, a sustainable infrastructure solution gaining momentum for its potential to address plastic waste issues while enhancing road durability. Also known as plastic-paved roads, this initiative involves incorporating shredded plastic

waste into asphalt layers during road construction, presenting a dual benefit of creating robust road surfaces and reducing plastic pollution.



*Sandra Ann Regi and Roshna Jomon from Madras Christian college*

The study was aimed to assess the effectiveness and sustainability of plastic road construction in India, emphasizing durability, cost reduction, and environmental impact. Plastic roads offer several benefits, including reduced plastic waste, enhanced durability, and cost-effectiveness. However, technological advancements, efficient waste collection, and public awareness are crucial for widespread adoption. As plastic road technology evolves, the way for a more sustainable and environmentally conscious future can be paved.

The speakers were advised to take up social cost-benefit analysis in order to include sustainability and also to add a comparison on the level of traffic experienced on the comparable roads in question.

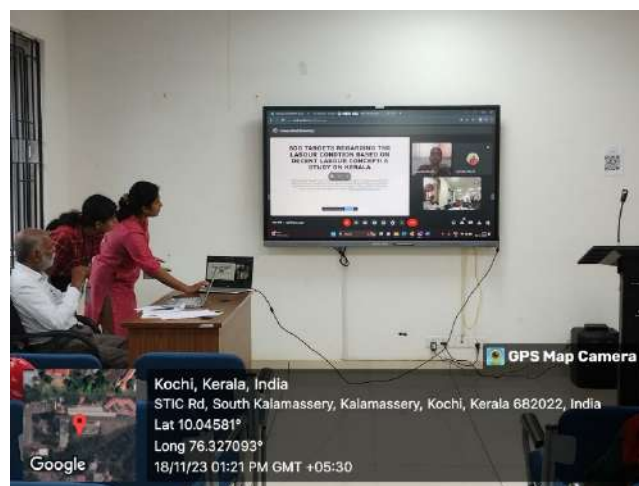
#### **7) SDG Targets regarding the labour condition based on decent labour concept: A study on Kerala**

Authored by **Dr Remmiya Rajan P.**, Post Doc Scholar D.Y. Patil Institute of Management Studies affiliated to **Savitri Phule**, Pune University and Ajay Johnson,



1st M.A Applied Economics, CUSAT. Presented by Dr Remmiya Rajan through online.

The study identifies key indicators of decent work, including fair income, secure employment, safe working conditions, equal opportunities, social protection, reasonable working hours, and the freedom of workers to express concerns and organize. The paper reviews over 50 articles on decent working conditions and their impact on employees' job engagement. It utilizes 22 metrics to describe decent work across various areas of activity and microdata from 2008–09 to 2017–18 to compile indices of decent work following ILO norms. The study delves into Sustainable Development Goal 8 (SDG8) - promoting inclusive economic growth and decent work. It stresses the significance of fair, secure, and inclusive employment. Using 22 metrics, the review explores decent working conditions and their impact on job engagement.



*Remmiya Rajan presenting through online*

The paper concludes that Kerala has made progress in promoting decent work, but challenges remain, particularly in achieving gender equality in the workforce. The study reinforces the importance of aligning with SDG8 principles, urging policymakers to address existing gaps. Recommendations include targeted interventions to promote gender equality, eradicate child labour, and enhance overall job security. The study advocates for sustained efforts to create a more equitable and inclusive work environment in Kerala, aligning with the broader global agenda for

sustainable and decent work. Dr Muraleedharan sir suggested to do the scaling to get composite indicators to compare Kerala with other states.

3<sup>rd</sup> academic session ended at 01:35 PM followed by a valedictory function.



*Santhosh sir giving the concluding remarks*

A token of gratitude was presented to Dr Muraleedharan sir and certificates to all the paper presenters. Dr. Santhosh Kumar PK, Director of Centre for budget studies delivered the concluding remarks.

The programme wrapped at 02:00 PM after the lunch.



*#Twodaynationalseminar*



**TWO-DAY NATIONAL SEMINAR**  
**HEADWAY TO A GREEN WORLD:**  
**EXPLORING DEVELOPMENT THROUGH**  
**SUSTAINABILITY**

**17-18 NOVEMBER 2023**

**SEMINAR HALL, CENTRE FOR BUDGET STUDIES**  
**COCHIN UNIVERSITY OF SCIENCE AND**  
**TECHNOLOGY**

ORGANISER

**CBS**  
CENTRE FOR BUDGET STUDIES

# PROGRAM SCHEDULE

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**17 NOVEMBER 2023**

09:00 AM **REGISTRATION**

09:30 AM **WELCOME ADDRESS**

Dr. HASEENA AKBAR  
SEMINAR COORDINATOR

**PRESIDENTIAL ADDRESS**

Dr. SANTHOSH KUMAR P.K.  
DIRECTOR, CENTRE FOR BUDGET STUDIES

**INAUGURAL ADDRESS**

Dr. SAM THOMAS  
DEAN OF SOCIAL SCIENCES

**KEYNOTE SPEECH**

Dr. SREELATHA  
KERALA AGRICULTURAL UNIVERSITY

**FELICITATION**

Prof. Dr. HARIKUMAR  
ADJUNCT FACULTY, DEPARTMENT OF APPLIED  
ECONOMICS, CUSAT

**VOTE OF THANKS**

ANJALI HARIDAS  
ASISSTANT PROFESSOR, CBS

11:45 AM **ACADEMIC SESSION I**

CHAired BY : Prof. Dr. HARIKUMAR  
ADJUNCT FACULTY, DEPARTMENT OF APPLIED ECONOMICS,  
CUSAT

02:30 PM **ACADEMIC SESSION II**

CHAired BY : Dr. S. SABU  
DIRECTOR AND ASSOCIATE PROFESSOR,  
SCHOOL OF INDUSTRIAL FISHERIES, CUSAT

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**18 NOVEMBER 2023**

10:00 AM **ACADEMIC SESSION III**

CHAired BY : Prof. Dr. S. MURALEEDHARAN  
VICE CHAIRPERSON, CSES  
FACULTY MEMBER, KN RAJ CENTRE, MG UNIVERSITY

**VALEDICTORY FUNCTION**